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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,925	06/21/2001	Jack Chen	4504-030	3893

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EXAMINER

VILLECCO, JOHN M

ART UNIT PAPER NUMBER

2612

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/884,925	<b>Applicant(s)</b> CHEN ET AL.	
	<b>Examiner</b> John M. Villecco	<b>Art Unit</b> 2612	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-21 and 28-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-21 and 28-34 is/are rejected.
- 7) ☒ Claim(s) 15,20,28 and 34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 16, 2005 has been entered.
2. Firstly, it is brought to the attention of the applicant that two different RCE's with correspondingly different claim amendments have been received by the PTO. The first RCE was filed on December 13, 2005 by the Berkeley Law and Technology Group. The second RCE was filed on December 16, 2005 by Lowe, Hauptman & Berner, LLP. It is noted that Lowe, Hauptman & Berner are listed as the attorney of record for this case. For this reason, the claim amendment filed on December 16, 2005 will be the amendment considered by the examiner. Applicant is required to correct this problem.

### ***Response to Arguments***

3. Applicant's arguments, see page 6, filed December 16, 2005, with respect to the rejection(s) of claim(s) 15 under 35 U.S.C. §102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hashimoto et al. (U.S. Patent No. 6,111,604).

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4. Additionally, applicant has added new claims 28-34. Please see the new grounds of rejection for these claims on the following pages.

### *Claim Objections*

5. Claims 15, 20, 28, and 34 are objected to because of the following informalities:

- In line 5 of claim 15, applicant recites the phrase “sound image pickup device”. This phrasing is unclear since it is not clear what a sound image is. It appears that applicant meant to use the phrase – sound pickup device –.
- In lines 3 and 5 of claim 15, applicant recites the word “transformed”. This word is unclear since it is used in the past tense and the rest of the claim is presented in the present tense. A more appropriate wording would be – transforming –.
- In lines 3 of claim 20, applicant recites the word “transformed”. This word is unclear since it is used in the past tense and the rest of the claim is presented in the present tense. A more appropriate wording would be – transforming –.
- In line 4 of claim 28, applicant recites the phrase “sound digital”. It appears that the applicant has omitted the word “signal” and thus, the phrase should read – sound digital signal –.
- In line 6 of claim 28, applicant recites the phrase “multimedia data file consisting digital image”. This wording is unclear. It appears that applicant meant to use the phrase – multimedia data file consisting of digital image –.
- In lines 1 and 2 of claim 34, applicant recites the phrase “said multimedia data file records include”. There is insufficient antecedent basis for this limitation. It

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appears that applicant meant to use the phrase – said multimedia data file includes

–.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 34 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Regarding claim 34, the phrase "in this case" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). For examination purposes it will be assumed that applicant meant that the multimedia data file does consist of generated image and sound of the object at each time frame.

9. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claim 34 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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More specifically, applicant claims that the multimedia data file consists of generated image and sound of said object at each time frame. This limitation cannot be found anywhere in the specification, thus, this subject matter constitutes new matter. The only mention of time-sharing multi-tasking digital signal processor occurs on page 6, lines 12-18. This passage mentions nothing about the multimedia image file consisting of generated image and sound of the object at each time frame.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. **Claims 15-17, 28, and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Hashimoto et al. (U.S. Patent No. 6,111,604).**

13. Regarding **claim 15**, Hashimoto discloses a digital camera capable of detecting connection to an external device and transmitting image and sound data to the external device. More specifically, Hashimoto discloses an image pickup device (photographing portion, 6) for receiving an image signal from an object and transforming the image signal into a first analog signal of a first electric level, a sound pickup device (microphone, 1) for receiving a sound signal and transforming the sound signal into a second analog signal of a second electric level, a first A/D converter (A/D converter, 4) for converting the first analog signal to a first digital signal, a

second A/D converter (A/D converter, 4) for converting the second analog signal into a second digital signal, and a processor (CPU, 23 and FIFO circuit, 13) for receiving the first and second digital signals to produce a single multimedia file including the digital image and sound information. This single multimedia file comprised of the image and audio files is then sent to the external device. See Figure 15 and column 11, lines 19-42. Furthermore, as discussed in column 10, line 44, the external device can be a personal computer.

14. As for **claim 16**, Hashimoto discloses that the photographing portion (6) includes a lens (lens, 7) for focusing the image signal, and a photoelectric converting element (CCD, 9) for sensing the focused image to generate the first analog signal.

15. With regard to **claim 17**, as shown in Figure 8 and column 6, line 42 the photoelectric converting element is a CCD (9).

16. Regarding **claim 28**, Hashimoto discloses a digital camera capable of detecting connection to an external device and transmitting image and sound data to the external device. More specifically, Hashimoto discloses an image pickup device (photographing portion, 6) for generating a image digital signal of an object, a sound pickup device (microphone, 1 and A/D converter, 4) for generating a sound digital signal, a multiplexer and a processor (CPU, 23 and FIFO circuit, 23) for combining the digital image and sound signals and producing a single file for transmission to the external device.

17. As for **claim 29**, Hashimoto discloses an A/D converter (4) for converting the analog signal from the CCD (9) to the image digital signal and another A/D converter (4) for converting a sound analog signal from the microphone (1) to the sound digital signal.

***Claim Rejections - 35 USC § 103***

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. **Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al. (U.S. Patent No. 6,111,604) in view of Maxium Technologies (Internet Publication, 2000).**

20. Regarding **claim 18**, as mentioned above in the discussion of claim 16, Hashimoto discloses all of the limitations of the parent claim. However, Hashimoto fails to explicitly state that the image sensor is a CIS. The Maxium Technologies Publication on the other hand, discloses that the use of contact image sensors (CIS) is well known in the art. The integration of CIS image sensors reduces the space needed for other components allowing for thinner and lighter products. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a CIS image sensor instead of the CCD image sensor in Hashimoto so that the camera is made smaller and lighter.

21. **Claims 19, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al. (U.S. Patent No. 6,111,604) in view of Ochi et al. (U.S. Patent No. 6,233,014).**

22. Regarding **claim 19**, as mentioned above in the discussion of claim 16, Hashimoto discloses all of the limitations of the parent claim. However, Hashimoto fails to explicitly



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disclose a reflection mirror for transmitting the image signal to the lens. Ochi, on the other hand, discloses that it is well known in the art to include a mirror for directing incoming light to a lens. More specifically Ochi discloses a mirror (14) for directing the incoming light to a lens (17). See Figure 1 and column 4, lines 18-29. This camera arrangement serves as an alternative arrangement for capturing an image. A line sensor camera can be made cheaper and smaller than a full image sensor camera. See column 4, lines 26-29. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the camera of Hashimoto in a manner similar to Ochi so that the camera can be made more cheaply and smaller.

23. As for **claim 30**, as mentioned above in the discussion of claim 29, Hashimoto discloses all of the limitations of the parent claim. Additionally, Hashimoto discloses a lens (7) for focusing the object on the CCD (9). However, Hashimoto fails to explicitly disclose a reflection mirror set. Ochi, on the other hand, discloses that it is well known in the art to include a mirror for directing incoming light to a lens. More specifically Ochi discloses a mirror (14) for directing the incoming light to a lens (17). See Figure 1 and column 4, lines 18-29. This camera arrangement serves as an alternative arrangement for capturing an image. A line sensor camera can be made cheaper and smaller than a full image sensor camera. See column 4, lines 26-29. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the camera of Hashimoto in a manner similar to Ochi so that the camera can be made more cheaply and smaller.

24. With regard to **claim 31**, Hashimoto discloses the use of a CCD (9) as a photoelectric converting element.

25. **Claims 20, 21, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al. (U.S. Patent No. 6,111,604) in view of Haranishi (U.S. Patent No. 5,764,779).**

26. Regarding *claim 20*, as mentioned above in the discussion of claim 15, Hashimoto discloses all of the limitations of the parent claim. Additionally, Hashimoto discloses a microphone (1) and a filter (2a). Hashimoto, however, fails to explicitly state that the microphone includes a filter for filtering off a noise signal from the analog signal. Haranishi, on the other hand, discloses that it is well known in the art to provide filters in a microphone for filter off noise. More specifically, Haranishi discloses a bandpass filter (2) for filter out noise from a microphone (1) and allowing only desired frequencies to pass. This feature allows for the microphone to only allow frequencies of the human voice to pass, thus increasing the quality of the signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a filter in the microphone of Hashimoto so that a higher quality sound signal is generated.

27. As for *claim 21*, Haranishi discloses only allowing frequencies of the human voice to pass through the bandpass filter (2). See the abstract.

28. With regard to *claim 33*, as mentioned above in the discussion of claim 29, Hashimoto discloses all of the limitations of the parent claim. Additionally, Hashimoto discloses a microphone (1) and a filter (2a). Hashimoto, however, fails to explicitly state that the microphone includes a filter for filtering off a noise signal from the analog signal. Haranishi, on the other hand, discloses that it is well known in the art to provide filters in a microphone for

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filter off noise. More specifically, Haranishi discloses a bandpass filter (2) for filter out noise from a microphone (1) and allowing only desired frequencies to pass. This feature allows for the microphone to only allow frequencies of the human voice to pass, thus increasing the quality of the signal. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a filter in the microphone of Hashimoto so that a higher quality sound signal is generated.

29. **Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hashimoto et al. (U.S. Patent No. 6,111,604) in view of Ochi et al. (U.S. Patent No. 6,233,014) and further in view of Maxium Technologies (Internet Publication, 2000).**

30. As for *claim 32*, as mentioned above in the discussion of claim 31, Hashimoto and Ochi disclose all of the limitations of the parent claim. However, neither of the aforementioned references explicitly states that the image sensor is a CIS. The Maxium Technologies Publication on the other hand, discloses that the use of contact image sensors (CIS) is well known in the art. The integration of CIS image sensors reduces the space needed for other components allowing for thinner and lighter products. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a CIS image sensor instead of the CCD image sensor in Hashimoto so that the camera is made smaller and lighter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John M. Villecco whose telephone number is (571) 272-7319. The examiner can normally be reached on Monday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John M. Villecco  
February 9, 2006